

1 **WHAT IS CLAIMED IS:**

- 2 1. A process for preparing an oil suitable for use as a lubricating oil base
3 stock and having a viscosity index of greater than 140 and a target pour
4 point of less than or equal to -10°C comprising:
- 5 a) contacting a waxy feed over a catalyst comprising a molecular sieve
6 having 1-D pores with a pore diameter of between about 5.0 Å and
7 about 7.0 Å, and at least one Group VIII metal, at a pressure of from
8 about 15 psig (103 kPa) to about 2500 psig (13.8 MPa) to produce an
9 isomerized oil having a pour point of at least 6°C above a target pour
10 point; and
- 11 b) solvent dewaxing the isomerized oil to produce a lubricating oil base
12 stock having the target pour point and a viscosity index of greater than
13 about 140.
- 14 2. The process according to Claim 1 for preparing a lubricating oil base
15 stock having a target pour point of less than about -20°C .
- 16 3. The process according to Claim 1 for preparing a lubricating oil base
17 stock having a viscosity index of greater than 150.
- 18 4. The process according to Claim 1 wherein the waxy feed contains more
19 than about 50% wax.
- 20 5. The process according to claim 4 wherein the waxy feed contains more
21 than about 80% wax.
- 22 6. The process according to Claim 1 wherein the waxy feed contains more
23 than about 70% paraffinic carbon.
- 24 7. The process according to Claim 1 wherein the waxy feed is selected from
25 the group consisting of synthetic oils and waxes such as those by
26 Fischer-Tropsch synthesis, high pour point polyalphaolefins, foots oils,
27 normal alpha olefin waxes, slack waxes, deoiled waxes and
28 microcrystalline waxes.

- 1 8. The process according to Claim 4 wherein the waxy feed is selected from
2 the group consisting of synthetic oils and waxes such as those by
3 Fischer-Tropsch synthesis, high pour point polyalphaolefins, foots oils,
4 normal alpha olefin waxes, slack waxes, deoiled waxes and
5 microcrystalline waxes.
- 6 9. The process according to Claim 1 wherein the isomerized oil has a pour
7 point of greater than about 0°C.
- 8 10. The process according to Claim 1 wherein between about 60% and about
9 99% by weight of the wax contained in the waxy feedstock is removed in
10 step a).
- 11 11. The process according to Claim 1 wherein the medium pore molecular
12 sieve has 1-D pores having a minor axis between about 3.9Å and about
13 4.8Å and a major axes between about 5.4Å and about 7.0Å.
- 14 12. The process according to Claim 1 wherein the medium pore molecular
15 sieve is selected from the group consisting of SAPO-11, SAPO-31 and
16 SAPO-41.
- 17 13. The process according to Claim 12 wherein the medium pore molecular
18 sieve is SM-3.
- 19 14. The process according to Claim 1 wherein the medium pore molecular
20 sieve is selected from the group consisting of ZSM-22, ZSM-23, ZSM-35
21 and SSZ-32.
- 22 15. The process according to Claim 14 wherein the medium pore molecular
23 sieve is SSZ-32.
- 24 16. The process according to Claim 1 wherein the medium pore molecular
25 sieve is ZSM-48.
- 26 17. The process according to Claim 1 wherein the hydrogenation component
27 is a Group VIII metal selected from the group consisting of platinum,
28 palladium or mixtures thereof.

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